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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/880,672

06/13/2001

Hyun-Dong Lee

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EXAMINER

ADDY, THJUAN KNOWLIN

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

09/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/880,672	Applicant(s) LEE, HYUN-DONG	
	Examiner THJUAN K. ADDY	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on June 24, 2008 has been entered. Claim 1 has been amended. Claims 2 and 4-8 have been cancelled. No claims have been added. Claims 1 and 3 are still pending in this application, with claim 1 being independent.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bank et al. (US Patent Application, Pub. No.: US 2001/0033669 A1), in view of Toki (UK Patent Application, GB 2343811).

4. In regards to claim 1, Bank discloses a panel-type speaker (e.g., transducer, actuator, exciter) (See Fig. 1, panel-form loudspeaker 10, resonant panel 12, and transducer 14) mounting structure (See Fig. 1 and mount 16) comprising: a second portion (See Fig. 9 and second piezoelectric beam 51) extended from the first portion (See Fig. 9 and first piezoelectric beam 43), for mounting a panel-type speaker to the lower surface of the second portion of the polarizing plate (See pg. 7, paragraph [0105]; pg. 7, paragraph [0111] - [0113]; pg. 8, paragraph [0125] - [0126]; and pg. 9, paragraph [0133] - [0134]). Bank discloses all of claim 1 limitations, except an LCD window or

Art Unit: 2614

LCD module arranged within the resonant element transducer. Toki, however, does disclose an LCD window with a particular size (See Fig. 2 and LCD Transparent Member 2) or LCD module arranged within a transparent piezoelectric speaker. Toki discloses a liquid crystal display (LCD) window having a first surface exposed on a top end and of an upper casing frame of a main body and a second surface facing an interior or the main body; and an LCD module disposed under the LCD window with a gap between the LCD module and the LCD window within the main body, the LCD module having a polarizing plate having an upper surface facing the second surface of the LCD window and a lower surface opposite the upper surface, the polarizing plate (See Fig. 2 and Transparent Piezoelectric Material 5) having a size greater than the size of the LCD window and being divided into a first portion located adjacent to the LCD window and, wherein the first portion of the plate has a size no larger than the size of the LCD window (See Fig. 2, LCD Transparent Member 2, and Transparent Piezoelectric Material 5) and the second portion has a size greater than a size of the speaker (See Fig. 2 and Piezoelectric Transparent Speaker Unit 26) and of the plate is extended in a direction below the LCD window away from the LCD window (See Fig. 2, pg. 2 lines 3-6, pg. 2-3 lines 22-2, and pg. 5 lines 1-10). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate these features within the speaker/transducer, as a way of providing a piezoelectric speaker to be used for a portable device, such as a mobile communication terminal, and providing a piezoelectric speaker that can lend a large installation area to a display device, such as LCD and CRT display.

Art Unit: 2614

5. In regards to claim 3, Bank discloses the panel-type speaker mounting structure, wherein the polarizing plate is made from a polarizing material (See pg. 7, paragraph [0111]).

Response to Arguments

6. Applicant's arguments filed 06/24/08 have been fully considered but they are not persuasive.

7. Applicant argues that Toki shows in Fig. 3 that the transparent electrode pattern 4, the transparent piezoelectric material 5, the diaphragm holding frame 12, and the sealing frame 13 all have substantially the same size and none are larger than the LCD transparent member 2.

8. In response to Applicant's argument above, Examiner respectfully disagrees. Toki shows in Fig. 2 that the LCD Transparent Member 2 has a particular size. Toki further shows in Fig. 2 the polarizing plate (See Fig. 2 and Transparent Piezoelectric Material 5) having a size greater than the size of the LCD window and being divided into a first portion located adjacent to the LCD window and, wherein the first portion of the plate has a size no larger than the size of the LCD window (See Fig. 2, LCD Transparent Member 2, and Transparent Piezoelectric Material 5) and the second portion has a size greater than a size of the speaker (See Fig. 2 and Piezoelectric Transparent Speaker Unit 26).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THJUAN K. ADDY whose telephone number is (571)272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2614

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thjuan K. Addy/
Primary Examiner, Art Unit 2614